UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,923	08/31/2001	Roy Chrisop	SLA 1050	2251

55286	7590	04/20/2006

SHARP LABORATORIES OF AMERICA, INC.
C/O LAW OFFICE OF GERALD MALISZEWSKI
P.O. BOX 270829
SAN DIEGO, CA 92198-2829

EXAMINER
LAM, ANDREW H

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/944,923	CHRISOP ET AL.
	Examiner	Art Unit	
	Andrew H. Lam	2625	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 March 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,4-14 and 17-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) <u>1,4-14 and 17-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

- This action is responsive to the following communication: an RCE filed on

  03/03/06.

- Claims 1, 4-14, and 17-31 are pending in the present application. Claims 26-31

  are new claims. Claims 1, 4-8, 11-14, 17-19, 21 and 23-25 are amended.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by

Asai (U.S. Patent No. 5,663,805) hereinafter Asai.

Regarding claims 1 and 14, Asai discloses in a multifunction peripheral (MFP)

device (fig. 1, facsimile unit 100, which has a plurality of function such as print, scan,

fax, therefore consider MFP) with a plurality of functions, a system for allocating random

access memory (RAM), the system comprising: an user interface (fig. 1, operation panel

11, col. 6, lines 15-20); and, using the user interface (col. 3, lines 10-16) for selecting a

percentage (col. 4, lines 39-61, allocating a certain percentage of memory to MFP

function using the UI) of RAM allocating for an MFP function (col. 3, lines 10-16); an

allocator (fig. 1, operation panel 11) to allocate the selected percentage of RAM (col. 4,

lines 25-30) and, RAM allocated to the temporary storage of documents (col. 4, lines

10-15) for processing by the MFP in response to MFP functions.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-14, 17-21 and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai in view of AuClair (U.S. Patent No. 5,659,670) hereinafter AuClair.

Regarding claim 29, Asai discloses the system of claim 14 wherein the user interface (col. 3, lines 10-16) is used to select the percentage of RAM allocated to the MFP function (col. 4, lines 39-61, allocating a certain percentage of memory to MFP function using the UI) selected from a group consisting of MFP components and where the components are selected from a group consisting of fax, scanner, printer, and copier components (col. 4, lines 10-25, the allocator allocates the memory between fax operation and printer operation).

Asai does not disclose expressly the system of claim 14, wherein memory is allocated based on document formats.

AuClair discloses the system of claim 14, wherein memory is allocated based on document formats (fig.1 system 100, block 122 shows the determination of the number of reused fonts in the font cache associated with the printer, i.e., fonts type are associated with document type. Typically, in PostScript and/or PCL emulation language printers, fonts are communicated to the printer according to the outlined, definitions of those fonts (col. 7, lines 34-39).

Asai and AuClair combinable because they are from a similar field of endeavor of providing memory (RAM) allocation to functions of an MFP. At the time of the invention,

it would have been obvious to a person of ordinary skill in the art to combine allocation

of memory for document formats as taught by AuClair with the overall system of

allocating memory (RAM) to an MFP. The motivation for doing so would have been to

increase the system performance by allocation excess or unused memory (RAM) for

document format, thereby overall efficiency of the printer is achieved. As such, the font

cache management enabled by the system 100 of the present invention can have an

important effect on the efficiency of the printer (AuClair, col.7 lines 48-58).

Regarding claim 17, the combination discloses the system of claim 29, wherein

the user interface supplies prompts for selecting the percentage of RAM the allocation

for a document format selected from the group including post script (PS) documents,

printer control language (PCL) documents, tagged image file format (TIFF) documents,

and portable document format (PDF) documents (AuClair, fig.1 system 100, block 122

shows the determination of the number of reused fonts in the font cache associated

with the printer, i.e., fonts type are associated with document type. Typically, in

PostScript and/or PCL emulation language printers, fonts are communicated to the

printer according to the outlined, definitions of those fonts, AuClair, col. 7, lines 34-39).

AuClair further states that the amount of memory allocated to the font cache can

therefore have an important effect on the overall efficiency of the printer. As such, the

font cache management enabled by the system 100 of the present invention can have

an important effect on the efficiency of the printer (col.7 lines 48-58)).

Regarding claim 18, the combination discloses the system of claim 14 further

comprising: an MFP front panel display; wherein the user interface is a graphical user

interface (GUI) to present RAM allocation options on the display (inherently touch

screen allows the user to response to interface prompts and that it is a GUI); and,

wherein the allocator allocates RAM for MFP functions in response to GUI prompts on

the display (AuClair, col. 3, lines 39-45).

Regarding claim 19, the system of claim 18 further comprising: a computer

workstation including a browser and a display (AuClair, fig. 4) that are networked-

connected to the MFP (AuClair, col. 9, lines 25-50); and, wherein the user interface

includes an embedded web server in the MFP, responsive to the computer workstation

browser requests, to supply a GUI on the computer workstation display presenting RAM

allocation options (AuClair, col. 9, lines 25-50).

Regarding claim 20, the combination discloses the system of claim 17 wherein

the allocator operates within predetermined ranges to limit each RAM allocation (Asai,

col. 4, lines 35-60, the ranges from 1%-50%, 50%-99%, etc.).

Regarding claim 21, the combination discloses the system of claim 17 wherein

the interface presents a memory configuration table GUI cross-referencing MFP

functions to their respective RAM allocations; and, wherein the allocator allocates RAM

for MFP functions in response to the memory configuration table GUI (AuClari, shows in

fig.3 a sample display of the configuration table cross-referencing memory allocation for

the present invention functions).

Regarding claim 24, the combination discloses the system of claim 14 with

continued reference to fig.3, a user may upload diskette 330 into a drive 340 included

with or connected to IPS 12. Processor 345 of IPS 12 may then download to or upload

for a printer usage determinations and buffer size, duplicate buffer and recovered

memory reassignment change parameter profiles and/or implementation schemes

(AuClair, col. 9, lines 44-51).

Regarding claim 25, the combination discloses the system of claim 14 wherein a

display list data storage location having a predetermined size (AuClair, col.10, line 30-

31).

Regarding claim 26, Asai discloses in a multifunction peripheral (MFP) device

(fig. 1, facsimile unit 100, which has a plurality of function such as print, scan, fax,

therefore consider MFP), the system comprising: an allocator (fig. 1, operation panel 11)

for the allocation or RAM, responsive to the user interface selection (col. 4, lines 25-30);

and, RAM allocated to the temporary storage of documents (col. 4, lines 10-15) for

processing by the MFP.

Asai does not disclose expressly a user interface to select the percentage RAM

allocated to a document format.

AuClair discloses expressly a user interface to select the percentage RAM

allocated to a document format (col. 7, lines 34-39).

Asai and AuClair combinable because they are from a similar field of endeavor of

providing memory (RAM) allocation to functions of an MFP. At the time of the invention,

it would have been obvious to a person of ordinary skill in the art to combine allocation

of memory for document formats as taught by AuClair with the overall system of

allocating memory (RAM) to an MFP. The motivation for doing so would have been to

increase the system performance by allocation excess or unused memory (RAM) for

document format, thereby overall efficiency of the printer is achieved. As such, the font

cache management enabled by the system 100 of the present invention can have an

important effect on the efficiency of the printer (AuClair, col.7 lines 48-58).

Regarding claim 27, the combination disclose the system of claim 26 wherein the

user interface selects the allocation of RAM for a document format selected from the

group including post script (PS) documents, printer control language (PCL) documents,

tagged image file format (TIFF) documents, and portable document format (PDF)

documents (AuClair, fig.1 system 100, block 122 shows the determination of the

number of reused fonts in the font cache associated with the printer, i.e., fonts type are

associated with document type. Typically, in PostScript and/or PCL emulation

language printers, fonts are communicated to the printer according to the outlined,

definitions of those fonts, AuClair, col. 7, lines 34-39). AuClair further states that the

amount of memory allocated to the font cache can therefore have an important effect

on the overall efficiency of the printer. As such, the font cache management enabled by

the system 100 of the present invention can have an important effect on the efficiency

of the printer (col.7 lines 48-58).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asai

further in view of well known prior art.

Regarding claim 22, Asai discloses in a multifunction peripheral (MFP) device

(fig. 1, facsimile unit 100, which has a plurality of function such as print, scan, fax,

therefore consider MFP) with a plurality of functions, a system for allocating random

access memory (RAM), the system comprising: an user interface (fig. 1, operation

panel 11, col. 6, lines 15-20); and, using the user interface (col. 3, lines 10-16) for

selecting a percentage (col. 4, lines 39-61, allocating a certain percentage of memory

to MFP function using the UI) of RAM allocating for an MFP function (col. 3, lines 10-

16); an allocator (fig. 1, operation panel 11) to allocate the selected percentage of RAM

(col. 4, lines 25-30) and, RAM allocated to the temporary storage of documents (col. 4,

lins 10-15) for processing by the MFP in response to MFP functions.

Asai does not disclose expressly that a user must reboot the system in order for

memory to assign to the proper components.

Official notice is taken that the concept and advantage of using reboot the

system is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the invention of Asai and reboot the system, thereby the

configuration or changes made to the RAM allocation in the MFP can be taken into

effect once the system reboot.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable Asai in view

of Bitar et al (U.S.Patent No 6,353,844) hereinafter Bitar.

Regarding claim 23, Asai discloses Asai discloses in a multifunction peripheral

(MFP) device (fig. 1, facsimile unit 100, which has a plurality of function such as print,

scan, fax, therefore consider MFP) with a plurality of functions, a system for allocating

random access memory (RAM), the system comprising: an user interface (fig. 1,

operation panel 11, col. 6, lines 15-20); and, using the user interface (col. 3, lines 10-

16) for selecting a percentage (col. 4, lines 39-61, allocating a certain percentage of

memory to MFP function using the UI) of RAM allocating for an MFP function (col. 3,

lines 10-16); an allocator (fig. 1, operation panel 11) to allocate the selected

percentage of RAM (col. 4, lines 25-30) and, RAM allocated to the temporary storage

of documents (col. 4, lines 10-15) for processing by the MFP in response to MFP

functions.

The Asai does not disclose expressly that a user can prioritize the MFP function

in event of memory contention.

Bitar discloses that resources such as CPUs and memory can be allocated for

each batch jobs (col. 11, line 32), wherein batch jobs within the critical batch job class

are assigned higher priority than batch jobs within the non-critical batch job class (col.

13, lines 10-24). Critical job can borrow resources when needed to complete the job on

time. In this way a system that employ this method can improves the response time

and can complete the job faster, because of the more efficient use to the resources

(col. 11, lines 45-48).

At the time of the invention, it would have been obvious to one of ordinary skill in

the art to modify Asai as per teaching of Bitar because by allocating additional

resources such as CPUs and memory to higher priority function would improve

response time of the printer. Thus, achieving the objective of Asai, which is to optimize

printing efficiency.

Regarding claims 4-13 and 28, they are interpreted and thus rejected for the

reasons set forth above in the rejection of claims 17-25 and 29, since claims 4-13 and

28 discloses a method that corresponds to the system of claims 17-25 and 29, thus the

method is inherent in that it simply provides functionality for the structural

implementation found in system claims 17-25 and 29.

Regarding claims 30 and 31, they are interpreted and thus rejected for the

reasons set forth above in the rejection of claims 26 and 27, since claims 30 and 31

discloses a method that corresponds to the system of claims 26 and 27, thus the

method is inherent in that it simply provides functionality for the structural

implementation found in system claims 26 and 27.

Response to Arguments

Applicant's arguments, see pages 10-16, filed 03/03/06, with respect to the

rejection(s)of claim(s) 1, 4-14 and 17-25 under 103(a) have been fully considered and

are persuasive. Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made in view of newly found prior art

references due to newly amended limitations as cited in claims 1, 14, 26 and 30.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew H. Lam whose telephone number is (571) 272-

8569. The examiner can normally be reached on M-F (9:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly A. Williams can be reached on (571) 272-7471. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

***   4/10/06

KING Y. POON
PRIMARY EXAMINER